Aside from imposing substantial and unnecessary costs, the network "architecture" that would result from BellSouth's policies would likely degrade the CLEC's service quality as compared to BellSouth. First, BellSouth's policies require that a customer's line must be taken out of service in order to migrate from BellSouth to a CLEC, in the form of a coordinated manual "hot-cut" of the loop and port, with the inevitable risk of human error which that process will entail.[25] Second, using duplicative collocated equipment (i.e., the facility that the CLEC must supply because it is not permitted to use the BellSouth frame) at least doubles the total number of cross connect points, thereby increasing the potential points of failure in the circuit.[26] Finally, under BellSouth's policies customers currently receiving service from BellSouth's integrated digital loop carrier ("IDLC") systems -- which typically carry the customer's loop into the central office over high-quality fiber optic facilities -- would have that service discontinued and replaced with a connection to an analog facility, which in some cases would degrade the quality of the service received by the customer.[27]

Although BellSouth contends that its policies regarding UNE combinations are consistent with its obligations under section 251(c)(3), as construed by the Eighth Circuit in Iowa Utilities (BellSouth Brief at 40), that decision neither mandates nor authorizes BellSouth's collocation requirement for combining UNEs. The Iowa Utilities decision was premised, in part, on the assumption that CLECs would have access to incumbents' networks in order to do the necessary

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[25] Affidavit of Amos E. Joel, Jr. ¶ 47, attached to Falcone Aff. as Attach. 1; Falcone Aff. ¶¶ 58, 65.

[26] Henry Decl. ¶ 22.

[27] Declaration of Glen Grochowski ¶¶ 5-6, attached to MCI Comments as Ex. C.

combining of UNEs (120 F.3d at 813), but BellSouth has refused to offer direct access.[28] In addition, the Court clearly held that CLECs were entitled to provide service entirely through the use of UNEs, and were not required to deploy their own facilities in order to combine UNEs. Iowa Utilities, 120 F.3d at 815. BellSouth's policies, however, effectively require CLECs to have facilities of their own in order to offer the UNE platform. Finally, the Eighth Circuit recognized that Congress intended UNEs to be a means to facilitate the *rapid* development of competition.[29] That Congressional intent would be frustrated if incumbents impose requirements on new entrants that would delay the introduction of competition or that would block the use of UNEs to compete for mass market customers. State commissions in Florida and Montana have reached the same conclusion in rejecting arguments by incumbents that CLEC collocation may be required in order to combine UNEs.[30]

[28] BellSouth objects to direct access on the grounds that it would represent a potential danger of harm to the network. Affidavit of W. Keith Milner ¶ 43 ("Milner Aff."), attached to the BellSouth Brief as App. A, Vol. 3, Tab 14; Varner Aff. ¶ 77. But BellSouth is itself responsible for the decision, in the first instance, to initiate unnecessary connections and disconnections on its distribution frames. Assuming that such unnecessary frame work is going to be done, the question is whether more mistakes affecting customer service are likely to be made by a team of BellSouth and CLEC technicians disconnecting and reconnecting the circuit once, as opposed to the process proposed by BellSouth, which requires its technicians to wire at least four cross connections in order to run the loop and port to a collocation cage and then back to the switch. Henry Decl. ¶¶ 28-29. See also Falcone Aff. ¶ 117.

[29] "Subsection 251(c)(3) requires incumbent LECs to provide competing carriers with fairly generous unbundled access to their networks in order to expedite the arrival of competition in local telephone markets" (Iowa Utilities, 120 F.3d at 811); "Congress clearly included measures in the Act, such as ... unbundled access ... to expedite the introduction of pervasive competition into the local telecommunications industry" (id. at 816); "The Act calls for the rapid introduction of competition into local phone markets" (id. at 816-17).

[30] Florida PSC Interconnection Order at 52-53; Montana PSC Order ¶ 15-17.

Although it is not necessary for the Commission to determine, in reviewing this application, precisely how BellSouth must provide UNEs so that other carriers can combine them, we note that several alternative methods have been suggested that would appear to impose a significantly smaller burden on competition than BellSouth's collocation requirement.[31] BellSouth, of course, also has the option of providing existing combinations of UNEs without first separating them, either permanently, or as an interim solution pending deployment of methods for recombining them that would not substantially bar competitive entry.

B. BellSouth Has Not Demonstrated That It Would Be Capable of Providing UNEs in a Manner Permitting Them to Be Combined in a Timely and Reliable Fashion Using Its Collocation Arrangements

Even assuming that BellSouth's collocation requirement could, as a theoretical matter, provide access for combining UNEs on a nondiscriminatory basis, BellSouth has not demonstrated through actual commercial use that it would be able to provide, in a timely and reliable fashion, either the collocation arrangements or the coordinated loop and port cut-overs that would be needed to support mass-market entry based on UNE combinations. See Henry Decl. ¶ 20. Nor has BellSouth provided any meaningful external evidence, such as third-party testing, that could show whether it has in place the capability of performing these complex and labor-intensive tasks in the high volumes that would be required for mass-market competition. The reported experiences of BellSouth competitors that have requested collocations and coordinated cut-overs of UNEs only heightens the Department's concern about the absence of

[31] Alternatives that have been proposed include permitting CLECs to have direct access to the incumbent's network in order to do the work of combining UNEs, and the remote separation and recombining of UNEs through electronic access, proposed by AT&T. Falcone Aff. ¶¶ 151-212.

such evidence. These reports, discussed below, suggest that BellSouth has had serious difficulties in providing these arrangements even in very low volumes.

BellSouth, of course, does not claim to have implemented a large number of collocation arrangements in Louisiana.[32] As the Commission noted in its decision on BellSouth's South Carolina application, new entrants have experienced substantial delays in obtaining suitable collocation arrangements in the BellSouth region.[33] The current application does not demonstrate that BellSouth has adequately addressed these problems or, even more importantly, how it could sufficiently increase its capacity to provide large numbers of collocation arrangements as a means of recombining network elements.

BellSouth has not had any significant experience in Louisiana in delivering unbundled loops to collocation arrangements. Thus, BellSouth has not shown through commercial use that it can physically deliver a substantial volume of unbundled loops to collocation arrangements. As mentioned earlier, BellSouth requires a "hot cut" or coordinated manual cutover of not only the loop, but also the switch port for *each* customer migrated from BellSouth to CLEC service. Thus, each customer must be taken out of service for at least some period of time, and if the coordinated cut-overs are not performed correctly, substantial service outages may occur. Even with a very limited volume of orders, new entrants have complained that BellSouth has been

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[32] BellSouth states it has implemented two physical and six virtual collocation arrangements in Louisiana. Milner Aff. ¶¶ 27, 31.

[33] South Carolina Order ¶ 203. See also Falcone Aff. ¶¶ 75, 85 n.24, 86.

unable to provide unbundled loops properly, and that their customers have been harmed as a result.[34]

Even if BellSouth had the capability to deliver large volumes of physically separated loops to collocation arrangements, however, this would not be sufficient to support competitive entry unless it were possible to efficiently order such services and maintain them through nondiscriminatory access to BellSouth's OSS. The Department's concerns regarding the capability of BellSouth's OSS to support adequately the method it has chosen for new entrants to combine network elements are discussed in Part IV of this evaluation.

III. BellSouth Has Not Demonstrated That Its Current or Future Prices for Unbundled Network Elements Will Permit Entry or Effective Competition by Efficient Firms

As we explained in our previous Louisiana evaluation, it is not only necessary that unbundled network elements be available to competitors, but that they be available at appropriate prices, lest UNE competition be seriously constrained.[35] For that reason, the Department regards

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[34] Falcone Aff. ¶¶ 66-67 (summarizing problems encountered by NEXTLINK and ACSI ordering and provisioning unbundled BellSouth loops); see e.spire Comments at 24-25. Although BellSouth claims to have eliminated problems in coordinating disconnect and reconnect orders by implementing a "single order" procedure, it does not state that it will use this approach for coordinating loop and port orders. See Milner Aff. ¶ 70; Affidavit of Jay M. Bradbury ¶ 203 ("Bradbury Aff."), attached to AT&T Comments as App. Vol. II, Ex. D. Moreover, AT&T complains that BellSouth has refused to adopt detailed methods and procedures to minimize outages during such cutovers. Falcone Aff. ¶¶ 60-64.

[35] DOJ Louisiana I Evaluation at 21-22. Similarly, resale competition can be substantially impeded if resellers are unable to obtain appropriate discounts from the retail price for services to be resold. In our evaluation of the first Louisiana application, we indicated that the resale discounts in Louisiana were generally consistent with our open-market standard. However, we pointed out that BellSouth's policies that Contract Service Arrangements (CSAs) would not be subject to the resale discount violated the principles set forth in the Commission's Local Competition Order. DOJ Louisiana I Evaluation at 29, 30 & n.60. Since then, BellSouth has offered in its SGAT to make CSAs available on an interim basis at the existing resale

an assessment of UNE pricing arrangements as an important consideration in determining whether a market has been fully and irreversibly opened to competition.[36] As we have stated previously, a variety of forward-looking methodologies could be used to derive competitively appropriate prices, and the Department does not require the use of any particular methodology. Whatever methodology is used, of course, should be reasonably applied to the available data. Moreover, if the prices for UNEs in a state are derived through a methodology other than a forward-looking economic cost methodology, we could not conclude that the market is fully open to competition unless, after careful consideration of the reasoning behind the prices on a case-by-case basis, we would be able to determine that the alternative standard is consistent with the procompetitive goals of the 1996 Act and permits entry and effective competition by efficient firms.

In Louisiana, BellSouth's pricing of unbundled elements suffers from at least three deficiencies that could seriously impair the ability of efficient competitors to compete using unbundled network elements.[37] These deficiencies, which relate to geographic averaging of UNE

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discount, and the LPSC has opened another proceeding to determine whether there should be a different discount for the resale of CSAs and if so, the amount of the discount. See Louisiana PSC SGAT Revision Order. We recognize, as has the Commission, that the "avoided costs" associated with the resale of CSAs may differ from the avoided costs associated with the resale of other services. See Louisiana Order ¶ 66. However, we continue to have questions about the methodology to be adopted and used by the LPSC and BellSouth to determine appropriate discounts for the resale of CSAs.

[36] See also DOJ South Carolina Evaluation at 35-40.

[37] Although we do not discuss them in this evaluation, we note that there are other significant outstanding disputes in Louisiana about BellSouth's non-recurring charges and loop prices. In most respects, however, the LPSC's pricing decisions, and its reasoned explanation of those decisions, are consistent with the Department's focus on pro-competitive pricing principles. Significantly, BellSouth's permanent prices for interconnection, unbundled elements and transport and termination, recently approved by the LPSC (See Louisiana PSC Final Pricing

prices and BellSouth's pricing of collocation and vertical switching features, were discussed at length in our evaluation of BellSouth's first Louisiana application, and have not been rectified by any further developments or findings in the intervening months.[38]

Geographic Deaveraging: BellSouth's prices for UNEs, including loops, remain uniform throughout all geographic areas of the state, despite substantial differences in the costs of loops across geographic areas.[39] In our previous Louisiana evaluation, we explained that the LPSC has accepted BellSouth's proposal to retain permanent statewide geographically averaged UNE prices -- without offering an explanation or justification -- despite the LPSC ALJ's recommendation that Louisiana should adopt geographic deaveraging based on broad "density

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Order at 4-5), were developed from a study by the LPSC's staff consultant according to the TSLRIC/LRIC ratemaking requirements that the LPSC adopted after the Telecommunications Act was passed, as well as the TSLRIC principles of the Michigan PSC. See id. at 3-4. The Department understands the language in the LPSC's rules to the effect that "[t]here is no mandate that unbundled elements be provided by the ILEC to TSPs at its TSLRIC or LRIC of providing such elements" (Louisiana PSC Amendments to General Order § 1001.E), to permit negotiation of rates on other bases, not as authorization for the LPSC itself to depart from the forward-looking pricing principles that it directed ILECs to use in providing cost studies to the LPSC, which would be used in conducting arbitrations or reviewing SGATs to establish rates under section 252 of the 1996 Act.

[38] See DOJ Louisiana I Evaluation at 23-28. BellSouth's prices (established by the Louisiana PSC Final Pricing Order) have since been affirmed by the LPSC in its order denying AT&T's and ACSI's (now, e.spire's) motions for reconsideration. See Louisiana PSC Pricing Reconsideration Order at 3-4.

[39] Experience from other states that have established deaveraged prices, such as New York and Massachusetts, as well as from general nationwide studies, indicates that the variations in loop costs between urban and rural areas are substantial. See New York PSC Order at 130 (establishing deaveraging based on zones); Massachusetts DPU Order at 32-33 (establishing deaveraging based on zones). There continues to be no evidence in this record that would suggest otherwise for Louisiana.

zones" to ensure accurate cost determination.[40] However, a ratemaking methodology that geographically *averages* rather than *deaverages* these costs will produce above-cost prices for unbundled loops in densely populated areas, thus inefficiently imposing costs upon and thereby impeding entry in those areas, and inefficiently subsidizing entry in other areas.[41]

We continue to believe that the ability to obtain unbundled loops at appropriately deaveraged prices may be critical to enabling facilities-based CLECs to expand their service offerings beyond centrally located large business customers (for whom these carriers can economically provide their own loops) to smaller and more dispersed small business or residential customers in urban areas served by central offices near the CLECs' facilities.[42] The transition to an efficient, sustainable, and equitable competitive environment will require both the geographic deaveraging of loop prices to reflect differences in costs, and the development of explicit and competitively neutral subsidies to support universal service.[43] The lack of

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[40] See DOJ Louisiana I Evaluation at 23-24. See also Louisiana ALJ Pricing Recommendation at 26, 58; Louisiana Final Pricing Order at 4-5.

[41] According to MCI, deaveraging loop prices for the most densely populated areas in Louisiana would decrease the monthly rate from $19.35 to $9.15. MCI Comments at 77; Declaration of Don Wood ¶ 56, attached to MCI Comments as Ex. D.

[42] It may be prohibitively expensive and economically wasteful for a CLEC to deploy its own loops to serve these smaller urban customers, but quite possible for that CLEC to serve them if it could use its own switching and transport facilities in combination with unbundled loops obtained from the incumbent LEC at cost-based prices. Geographically averaged loop prices produce above-cost prices for these loops, impeding this competitive entry. Geographic averaging also generates below-cost loop prices in areas with above-average loop costs. The implicit subsidy effected by this pricing methodology generates inefficient incentives for investment.

[43] In discussing a transitional approach for geographic deaveraging, we do not suggest that states need or should wait to establish deaveraged rates for unbundled elements. Indeed, as we state in n.40, many have already set deaveraged prices.

geographic deaveraging, or even a transition plan towards deaveraging, may act as a barrier to efficient competition. While we do not believe that geographic deaveraging must necessarily take place immediately, before section 271 authority can be granted, here there is not even an indication that it will be accomplished over some transition period.

Collocation Pricing: Similarly, BellSouth's Louisiana collocation pricing has not changed since its last application. As before, BellSouth offers no prices for a significant component of physical collocation -- space preparation -- leaving the determination of such prices to negotiation on a case-by-case basis, and BellSouth has again failed to demonstrate that its charges for space construction can be justified on the basis of a procompetitive, forward-looking, cost-based methodology.[44] Both the Department and the Commission have noted before that because physical collocation is an important component of providing interconnection and access to unbundled network elements under section 251(c)(6), the absence of reasonable and predictable prices for collocation may deter or delay entry. DOJ Louisiana I Evaluation at 26; South Carolina Order ¶ 204. Both the Department and the Commission specifically identified BellSouth's use of indeterminate collocation prices, to be negotiated at some future time, as a ground for rejection. Id.

In the current filing, BellSouth maintains its earlier position that it cannot offer specific prices for space preparation because the costs vary with the needs of the particular CLEC

[44] Louisiana PSC Final Pricing Order, Attach. A at 6; Louisiana ALJ Pricing Recommendation at 52-55, 64-65 (The Louisiana ALJ observed that BellSouth had proposed a price for a collocation enclosure of $8,648.32, compared with the forward-looking costs of $2,737.81 that were proposed by competitors, and, based on forward-looking cost standards, the ALJ approved the cost model offered by competitors.)

customer, relying upon the LPSC's summary decision not to use the forward-looking cost model recommended by the LPSC's ALJ. BellSouth Brief at 35. Although there may be instances in which it would be justifiable to postpone addressing certain pricing issues because of the practical impossibility of doing otherwise, as a rule we continue to believe that it is far preferable for a BOC to have prices (or at least a firm pricing formula or methodology for determining prices where it is not feasible to determine specific prices in advance) and other relevant terms of service in place when it applies, rather than to defer such terms for future negotiations following its interLATA entry, when its incentives to delay local competitive entry would be heightened. On the current record, BellSouth has once again not provided sufficient specificity in advance -- or adequately explained why it could not do so -- as to how it will charge for physical collocation space in Louisiana.[45]

In the current application, BellSouth instead offers to provide CLECs with redacted records regarding similar Louisiana collocation work, and argues that this will give CLECs a reasonable and predictable basis for assessing their own price quotations. BellSouth Brief at 35-36. The Department disagrees. The mere provision of information about prices charged to others for collocation work, without any actual *commitment* from BellSouth to a price or pricing formula, cannot give CLECs the certainty or predictability they need to enter a market.

Having examined BellSouth's collocation prices in other states, such as Georgia, it is evident that there are other very substantial variations in the prices charged for the identical

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[45] On the contrary, we note that BellSouth *has* offered specific rates for space preparation fees in Georgia ($100 per square foot) in response to the Georgia Commission's pricing determination. Georgia PSC Permanent Rate Order at 3, 61-62, attached to this Evaluation as Ex. 5.

collocation component. See, e.g., Georgia PSC Permanent Rate Order at App. A (chart). Because BellSouth has not committed itself to firm pricing principles, and has not adequately justified these prices in Louisiana, we are left with the same significant competitive concerns -- namely, the risk of unreasonable prices and drawn-out negotiations that may deter or delay entry -- regarding BellSouth's pricing structure for collocation that we expressed in our previous evaluation. DOJ Louisiana I Evaluation at 26-27.

Pricing of Vertical Switching Features: In Louisiana, CLECs which purchase unbundled local switching and the capability of providing vertical switching features must pay a switch port charge of $2.20 per month, and a separate charge of $8.28 per month for all vertical features. Louisiana Final Pricing Order at 4-5. In sharp contrast, a number of other states, including states within the BellSouth region, have rejected the concept of imposing a separate charge for vertical switching features, concluding that the costs of most or all of these features are adequately recovered through port charges in the range of $2-$3 (or lower), roughly one-quarter of BellSouth's total price for a switch port and its vertical features in Louisiana.[46] We are not aware of any evidence in the record that this price disparity reflects any difference in the costs of providing unbundled switch ports or vertical features in Louisiana.

As we noted in our evaluation of the first Louisiana application, BellSouth's cost study in support of these prices was submitted at a late stage in the LPSC's pricing docket, as BellSouth had initially resisted providing vertical features as unbundled elements. The LPSC staff

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[46] See, e.g., Georgia PSC Permanent Rate Order at 41-42 (permanent rate of $1.85 for switch port including vertical features); Florida PSC Final Order on Arbitration at 15-18 and Attach. A, Table 1 (cost-based rate of $2.00 for switch port including vertical features); New York PSC Order, Attach. D at 1 (including most listed vertical features in port charge of $2.50).

consultant rejected some of BellSouth's cost assumptions, but still priced vertical switching features as a separate element in addition to the $2.20 switch port charge, recommending a substantial charge for all vertical features that was the basis for the $8.28 charge approved by the LPSC.[47] The ALJ proposed to conduct further proceedings on this issue, in light of the limited opportunity the consultant had to analyze BellSouth's cost data, while using the consultant's recommended rate on an interim basis. Louisiana ALJ Pricing Recommendation at 52, 64. The LPSC rejected this recommendation without explanation, adopting the recommended rate as permanent without conducting further proceedings. Louisiana PSC Final Pricing Order at 4-5.

Since that time, the LPSC has affirmed its earlier decision on reconsideration without any discussion on the merits. Louisiana PSC Pricing Reconsideration Order at 3. That decision states simply that the staff had produced reasonable, cost-based rates, that the consultant allocated her time using her judgment about the relative importance of issues, and that the consultant had acknowledged that with additional time to analyze vertical features and non-recurring cost studies, her recommended numbers for these items "could be higher, lower or not substantially different from that which the Commission had already adopted." Id. In light of the substantial unexplained disparity between the prices for unbundled switching and vertical features in Louisiana and those prices in other BellSouth states, as well as the ALJ's and the LPSC consultant's recognition that this issue would have benefitted from further analysis, we continue to question whether competitors wishing to offer services that use BellSouth's

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[47] Louisiana PSC Final Pricing Order at 4-5; Louisiana Public Service Commission, Docket No. U-22022, Transcript of Proceedings (Dismukes Testimony), Hearing Vol. No. 9, at 2867-69, 2885-87, 2913-17, 3054-74, 3111-17 (Sept. 24, 1997), attached to BellSouth Brief as App. C-3, Vol. 35, Tab 281.

unbundled switching and vertical features are being competitively disadvantaged by unreasonably high prices for those unbundled elements.

IV. BellSouth Has Failed To Demonstrate That Its Wholesale Support Processes Are Adequate To Ensure An Open Market

Effective competition by firms that will rely on UNEs, as well as other modes of entry, will require efficient and reliable wholesale support processes, including electronic access to operations support systems. Despite a number of improvements made to its wholesale support processes since its earlier South Carolina and Louisiana section 271 applications, BellSouth has not yet demonstrated that its wholesale support processes are adequate to ensure an open market.[48]

As we have previously stated, the most probative evidence of the reliability and readiness of wholesale support processes is successful commercial usage[49] demonstrated through a robust set of performance measures. Past experience suggests that limited commercial usage at small volumes does not provide an adequate basis upon which to judge the performance of systems that will need to handle a much larger volume of orders. In some circumstances when actual commercial usage is limited or nonexistent, evidence from carrier-to-carrier testing, independent

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[48] We note that since BellSouth's last Louisiana section 271 application another state commission, the Georgia Public Service Commission, has raised serious questions about the adequacy of BellSouth's present wholesale support processes. The Georgia PSC has established a detailed schedule for implementing a series of OSS improvements that it has concluded need to be made. See generally Georgia PSC OSS Order at 6-18, Apps. A, B.

[49] "[I]ndustry experience demonstrates that, even after significant testing between BOCs and CLECs, wholesale support processes, both automated and human, rarely function as advertised and almost never practicably provide resale services and unbundled elements prior to enduring the rigors of commercial trials." DOJ Oklahoma Evaluation, App. A at 81.

third-party testing, or internal testing may be used to demonstrate the reliability and readiness of a BOC's wholesale support processes.[50]

BellSouth's present showing is inadequate. Evidence of the results of commercial usage is unconvincing because of the relatively small volume of transactions processed by those systems, the absence of data measuring some important dimensions of performance, and indications of poor or inadequate performance in some of the performance data BellSouth has provided. BellSouth's limited testing evidence (including the Ernst & Young material) does not overcome these problems because in critical respects it either fails to address certain key issues or does so only in a conclusory fashion.[51]

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[50] In general, the Department will consider testing evidence alone only if the more compelling evidence based on actual commercial usage is not available or expected in the near term. Where such commercial usage is limited (e.g., below reasonably foreseeable levels, limited to certain geographic regions, or limited to certain functions) or not expected, the Department will carefully examine the circumstances to determine whether factors under the BOC's influence are responsible for the absence of significant commercial usage. As already indicated, here it appears that BellSouth policies are a major factor, if not the major factor, behind the limited commercial usage of unbundled network elements.

[51] Apart from the *performance* of BellSouth's existing systems and processes, BellSouth is also still missing a number of key system *functions* and has failed to provide key support information, which affects all three entry modes. Moreover, BellSouth has not corrected a number of deficiencies previously identified by the Department and the Commission. BellSouth still lacks a proven application-to-application pre-ordering interface (see, e.g., AT&T Comments at 40-42; Intermedia Comments at 11; e.spire Comments at 31-32; MCI Comments at 56-58; OmniCall Comments at 2); flow-through for large classes of orders (see, e.g., Bradbury Aff. ¶¶ 196, 242-48; Affidavit of C. Michael Pfau and Katherine M. Dailey ¶¶ 74-76 ("Pfau/Dailey Aff."), attached to AT&T Comments as App. Vol. IX, Ex. M; e.spire Comments at 29-30, 33; Declaration of Bryan Green ¶¶ 150-68 ("Green Decl."), attached to MCI Comments as Ex. B); electronic jeopardy notices for significant classes of jeopardies (see, e.g., AT&T Comments at 43; CompTel Comments at 10; e.spire Comments at 25, 31; MCI Comments at 43-45; Sprint Comments at 34-35); fully documented business rules for ordering processes (see, e.g., AT&T Comments at 38-39; Affidavit of Donna Hassebrock ¶¶ 54-55, 66-69 ("Hassebrock Aff."), attached to AT&T Comments as App. Vol. VII, Ex. H; Affidavit of Christopher J. Rozycki ¶ 6 ("Rozycki Aff."), attached to ALTS Comments; KMC Comments at 17; Affidavit of Hamilton E.

A. Inadequacies in BellSouth's Evidence from Actual Commercial Usage

BellSouth's performance results based upon actual commercial usage are insufficient to demonstrate the commercial availability, reliability, and readiness of its wholesale support processes. As discussed above, BellSouth has received and processed relatively few UNE orders; while it has roughly 2.2 million access lines in Louisiana and 26 million access lines in its region, BellSouth has processed orders for only about 100 unbundled loops in Louisiana and fewer than 19,000 unbundled loops in its entire region.[52] It does not appear that BellSouth has processed any orders, anywhere in its region, through which a CLEC is providing service using only UNEs obtained from BellSouth. As explained above, BellSouth's policies regarding combinations of UNEs have effectively precluded that form of market entry throughout its region.

Moreover, the data that BellSouth has provided regarding recent usage (both resale and UNE) is inadequate. A general review of this data suggests that BellSouth's performance is deficient in several areas,[53] but it is difficult even to evaluate the true picture: given the level of

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Russell, III ¶ 4 and Attach. 1, attached to State Communications Comments); and adequate change-management procedures (see, e.g., AT&T Comments at 36-38; Hassebrock Aff. ¶¶ 4-10, 22-24, 34-47, 56-71; MCI Comments at 46-47; Rozycki Aff. ¶ 7; KMC Comments at 18).

[52] In contrast, Ameritech had provisioned 16,000 unbundled local loops ("ULLs") in Michigan alone at the time of its application there. e.spire Comments at 23. See also supra 4-5, 7-8.

[53] The Department's efforts to analyze the data have been hindered by several factors. BellSouth has not uniformly provided data on its retail performance that is necessary to compare its wholesale and retail performance. Where such data is provided, BellSouth's report formats make it difficult to compare wholesale and retail performance readily, especially on a month-to-month basis, and to identify performance trends or distinguish anomolies.

In addition, BellSouth's reports generally do not provide the number of observations (e.g., orders, queries, calls, or reports) underlying the various statistics or standard deviations missing measures, incomplete data, and insufficiently disaggregated data, BellSouth has failed to provide a complete set of data in a manner necessary to analyze fully its performance. As the examples below indicate, the deficiencies extend across a range of OSS functional categories.[54]

Pre-Ordering: During the period reported in the application, March-May 1998, CLEC users of BellSouth's LENS pre-ordering and ordering interface seeking to obtain information from customer service records ("CSRs") have experienced average response times nearly twice those experienced by BellSouth's own retail representatives using the RNS residential service order negotiation system.[55] In an apparent attempt to explain this inequity, BellSouth states that "RNS time reflects the handling of residence orders only, while LENS time reflects the handling of both residence and *more complex business orders*."[56] However, BellSouth provides no comparable data regarding response times experienced by its own business representatives -- the

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associated with them. To the extent that the statistical methods for analyzing such data use the number of observations, the standard deviation, or other such numbers in the relevant calculations, without them, it does not appear possible to judge completely the significance of reported performance results. See Pfau/Dailey Aff. ¶¶ 61-63; Affidavit of Melissa Closz ¶¶ 40-41 ("Closz Aff."), attached to Sprint Comments as App. C.

In discussions with the Department, BellSouth representatives have confirmed that data regarding the number of observations exists and could be provided, but they contend that this data would reveal competitively sensitive information. They have stated, however, that BellSouth is willing to provide the numbers on special request subject to appropriate protective measures, but we understand that such protective measures have not yet been developed.

[54] For additional discussion of BellSouth's performance measurement scheme, see generally Pfau/Dailey Aff.; Affidavit of Carolyn M. Marek ("Marek Aff."), attached to Time Warner Comments as App. A; Affidavit of Jeffrey Ross ("Ross Aff."), attached to Time Warner Comments as App. B; Closz Aff. ¶¶ 33-64; e.spire Comments at 33-35; WorldCom Comments at 11-17.

[55] Performance Measures Affidavit of William N. Stacy ("Stacy Perf. Aff."), Ex. WNS-3 (Pre-Ordering and Ordering OSS: Average Response Interval Report), attached to BellSouth Brief as App. A, Vol. 6, Tab 23.

[56] Id. at n.1 (emphasis added).

market segment upon which its explanation depends -- and thus we are unable to evaluate either the validity of the explanation or BellSouth's performance. In addition, BellSouth does not report at all on the performance of its EC-Lite system, an application-to-application pre-ordering interface upon which its Louisiana application heavily relies, and thus we cannot evaluate whether that interface is performing adequately.[57]

Ordering: In evaluating prior 271 applications, both the Department and the Commission have emphasized the importance of electronic "flow-through" of orders from the gateway to the service order processor in preventing the delays and inaccuracies inevitably associated with processing orders manually.[58] In the current application, BellSouth asserts that "after adjusting for CLEC errors that required manual intervention" (BellSouth Brief at 26) in May 1998, it achieved a regionwide flow-through rate of 82% for CLEC orders (residential and business aggregated) submitted electronically. Even assuming that BellSouth properly "adjusted" the data -- an issue upon which we express no view -- the data still raises serious concerns. In contrast to BellSouth's performance for CLECs, BellSouth's own regionwide flow-through rates were 96% for its retail residential orders, and 83% for its retail business orders.[59] These numbers, at a

[57] We note that AT&T states that its measurements reveal EC-Lite response times substantially longer than LENS response times, including a June 1998 average of over 14 seconds. Bradbury Aff. ¶ 240 and Attach. 41; Pfau/Dailey Aff. ¶ 56 & n.106, 68.

[58] E.g., Michigan Order ¶¶ 172-99; South Carolina Order ¶ 107; DOJ Michigan Evaluation, App. A at 14-16; DOJ South Carolina Evaluation, App. A at 22-23.

[59] Stacy Perf. Aff. Ex. WNS-3 (Ordering: Percent Flow-Through Reports). It is not possible to compare the wholesale and retail flow-through rates fully at this time because BellSouth has not disaggregated the wholesale CLEC data to distinguish between rates for business and residential orders, or between UNE and resale orders.

minimum, suggest that either the CLECs' residential or business flow-through (or both) are substantially below BellSouth's own rates.

The CLEC flow-through rate is more disturbing when one recognizes that this figure includes orders submitted through both LENS and EDI. Because the LENS interface is used primarily for simpler orders that are more likely to flow through successfully, the high ratio of orders submitted through LENS enhances the overall CLEC rate. BellSouth's performance relating to its primary CLEC ordering interface, EDI -- the only electronic interface designed for UNE orders -- fared even worse. BellSouth's March through May 1998 performance data reveals that the four carriers who submitted UNE orders to BellSouth only through the EDI interface (and who together accounted for virtually all of BellSouth's EDI orders) experienced a flow-through rate only marginally above 40%.[60]

Apart from order flow-through, CLECs must stay informed of the progress of their orders, so that they can appropriately manage their businesses and keep their customers informed. This requires ILECs to process CLEC orders quickly and return status messages such as "firm order confirmations" ("FOCs") and rejection notices in a timely fashion. During the period between the submission of an order and the receipt of a status message, the CLEC must wait, not knowing whether the order will be accepted, and cannot commit to its customers as to when service will be available. See, e.g., Closz Aff. ¶ 56; cf. Intermedia Comments at 12. BellSouth's data relating to its performance in this area is again troublesome. BellSouth's performance

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[60] There is some issue as to the appropriate calculation of EDI flow-through, and some commenters have alluded to flow-through rates even lower. See Pfau/Dailey Aff. ¶ 75 (34.2% rate for EDI); see also, e.spire Comments at 33 (reporting that BellSouth recently stated that only about 23% of its monthly orders flow through).

reports relating to FOCs show numerous categories, both in Louisiana and in its region as a whole, in which it took an average of two to three days simply to confirm orders. Indeed, in some categories, BellSouth's performance appears to be getting worse, with May intervals often longer than April intervals. Stacy Perf. Aff. Ex. WNS-3 (Ordering: FOC Timeliness Report). Similarly, BellSouth's rejection notice performance is poor, with March and April reports showing several categories in which it took an average of four to eight days to reject erroneous orders.[61] Moreover, while one would expect electronically submitted service orders to be handled more quickly than manually submitted orders, the reports show that BellSouth's average time to respond to electronically submitted orders containing errors was generally longer than the average time to respond to orders submitted manually.[62]

Provisioning: Obviously, it is critical to competition that incumbent LECs provision CLEC orders in a timely and accurate fashion. See, e.g., Rozycki Aff. ¶¶ 12-13. However, BellSouth still omits proper measurements of Average Provisioning Interval,[63] Orders Held for

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[61] Id. (Ordering: Reject Interval Report). Although May's results appear marginally better, the report still shows several categories with two to three day averages, and rejection notices for UNE loop with LNP orders in Louisiana took an average of nearly five days.

[62] See also CompTel Comments at 9; Rozycki Aff. ¶¶ 8, 14.

[63] Previously, BellSouth did not measure Average Provisioning Interval at all. BellSouth now provides such a measurement, but fails to exclude from the calculation those orders in which the customer requests a due date beyond the next available date. When the calculation includes these orders in which the customer has, in essence, asked BellSouth to delay its provisioning, the resulting measurement no longer accurately reflects BellSouth's performance and thus is not a reliable indicator. See Michigan Order ¶ 170 (agreeing with the Department that Ameritech "should exclude from its data those customers who requested due dates beyond the first available due date").

Facilities and Average Delay Days,[64] and any measurement of Completed Service Order Accuracy, measurements that are all important to a determination of whether BellSouth is, in fact, provisioning CLEC service orders in a nondiscriminatory fashion. BellSouth's data raises additional concerns. For example, for certain simple orders (those not requiring a dispatch and involving fewer than ten circuits), Louisiana CLECs in May 1998 waited an average of eleven days for UNE orders, 1.93 days for residential resale orders, and 1.61 days for business resale orders, compared to only 0.88 days for BellSouth's own residential orders and 1.29 days for BellSouth's business orders.[65] Results in previous months are similar. Further, for Louisiana dispatch orders involving fewer than ten circuits, BellSouth in May 1998 missed provisioning appointments nearly twice as often for CLEC residential resale orders as for its own residential orders (10.20% compared to 5.90%).[66]

In addition to the status messages discussed above with regard to ordering, another important status message is the completion notice, which informs the CLEC that the incumbent

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[64] BellSouth measures held order intervals, but it collects and reports the data in such a way that it is difficult to accurately focus on orders held for facilities. Accordingly, it presently does not appear that BellSouth's measures are adequate to detect discrimination in the provision of additional facilities needed to connect service.

[65] Stacy Perf. Aff. Ex. WNS-3, (Provisioning: Order Completion Interval Reports).

[66] Id. (Provisioning: Percent Missed Appointments Report). Another timeliness measure relates to the speed with which "hot cuts" are performed. BellSouth reports that in a recent study it cut loops in an average of about four minutes and ported numbers in an average of less than one minute. BellSouth Brief at 57. These statistics present an incomplete picture, however, for they do not reveal how long a customer is out of service. In discussions with the Department, BellSouth has confirmed that if the two steps of cutting the loop and porting the number were not properly coordinated and took place some period apart, the interval during which the customer was out of service would not be reflected in these measurements. Thus, these statistics are insufficient to refute the numerous accounts of BellSouth's failure to properly coordinate these types of orders. See, e.g., e.spire Comments at 22-23; KMC Comments at 22-23; Henry Decl. ¶¶ 60-62; see also Closz Aff. ¶ 61.

LEC has finished working the order and that the customer has service. The completion notice is important, not only for keeping customers informed. but also for key functions such as billing,[67] and the failure to provide such notices in a timely manner adversely impacts CLECs. See, e.g., KMC Comments at 20. Because BellSouth has not yet begun reporting data for the Average Completion Notice Interval, we cannot determine BellSouth's actual performance.

Maintenance and Repair: Because failures in the incumbent LEC's network appear to CLEC customers as CLEC failures, it is critical to competition that incumbent LECs provide maintenance and repair functions for UNEs and resold services in a timely, accurate and nondiscriminatory manner.[68] BellSouth's set of performance measures in this functional category are the most complete, though as with provisioning, BellSouth has failed to disaggregate data below the state level.[69]

The reported data, however, again causes concern. One important measure of maintenance and repair performance is the mean time to repair troubles. Based on May 1998 figures for Louisiana, CLEC resold business orders requiring trouble dispatches took over sixteen hours, nearly 40% longer than for BellSouth's own corresponding retail business orders. During

[67] See, e.g., Pfau/Dailey Aff. ¶ 22; Green Decl. ¶ 130; see also Rozycki Aff. ¶ 15.

[68] See, e.g., Time Warner Comments at 15-16; Ross Aff. ¶ 24 (describing accounts of Time Warner customer complaints claiming that they received better service from BellSouth as BellSouth customers than as Time Warner customers).

[69] With respect to both provisioning and maintenance and repair, BellSouth's failure to disaggregate its performance data below the state level makes performance evaluation difficult. Unlike pre-ordering, ordering and billing systems, which operate regionally, provisioning and maintenance/repair processes are more localized and rely on local plant and work forces. Further disaggregation would permit analysis of local variations in performance. See generally Closz Aff. ¶¶ 36-49; Pfau/Dailey Aff. ¶¶ 95-96; Hyperion Comments at 7-8; ALTS Comments at 12, 13 & n.13; CompTel Comments at 11-12.

the same period, BellSouth took an average of two days to complete repairs relating to CLEC UNE design services, and an average of over three and one-half days for the subset of those repairs not requiring a dispatch. Stacy Perf. Aff. Ex. WNS-3 (Maintenance & Repair: Maintenance Average Duration Report).

Another important performance measure is the number of "repeat" reports, which is a key indicator of maintenance process reliability and, historically, has had a strong correlation with an end user's perception of local service provider quality. BellSouth's May 1998 data for UNEs provided to CLECs in Louisiana shows a repeat rate within thirty days of 50% for dispatched repairs. The same set of data also shows that, for numerous resale categories, the repeat rate for CLECs appears to be significantly worse than for BellSouth's retail business: 97% higher repeat rate than BellSouth retail for non-dispatch business orders, 30% higher for dispatch business, 31% higher for non-dispatch residential, and 83% higher for dispatch design. Id. (Maintenance & Repair: Repeat Troubles Report).

In sum, given the limited commercial usage of BellSouth's wholesale support systems, the absence of complete data reflecting the performance of those systems, and indications of poor performance in data that has been reported, we do not believe that BellSouth has demonstrated through actual commercial usage that its wholesale support processes are adequate. Moreover, where the reported data has such numerous indications of deficient performance, BellSouth does not carry its burden by simply producing data and asserting that it shows adequate performance: BellSouth needs to discuss the results and, where apparent discrepancies exist, explain them.[70]

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[70] A fundamental problem is that BellSouth and interested persons have not identified and implemented a method for analyzing and interpreting the performance data. Having

B. Inadequacies in BellSouth's Evidence from Testing

BellSouth's testing evidence does not overcome the problems identified above. While BellSouth cites the existence of carrier-to-carrier testing, it provides virtually no information about the nature of those tests or about each carrier's experience. In addition, BellSouth's limited internal testing appears to have focused on OSS interface and system capacity, and not on end-to-end performance.[71] System capacity, while important, is but one of the components essential to adequate wholesale support processes. While system capacity tests are significant, they are insufficient to demonstrate adequate performance of the end-to-end process.

BellSouth relies principally upon an Ernst & Young attestation,[72] but that attestation has two fundamental weaknesses. First, we are unable to judge whether Ernst & Young conducted a review that is adequate to support the asserted conclusion because the attestation and BellSouth's application provide no information describing the specific methods, tests, and analyses upon which the Ernst & Young conclusions are based. There is only a brief statement of the types of tests used (see Putnam Aff. ¶ 17) and a statement to the effect that "Ernst & Young's tests included observation, inquiry, examination of evidence and testing of the systems that we considered necessary." Id. ¶ 18.[73] This level of information is plainly inadequate. To evaluate

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abandoned the use of statistical process control, BellSouth needs an alternative method, one by which it can be determined whether the reported data reflects adequate or inadequate performance.

[71] In addition, given the limited discussion of these tests, we have questions regarding the nature and thus the adequacy of the internal testing that was performed.

[72] BellSouth Brief at 20; Affidavit of John W. Putnam ("Putnam Aff."), attached to BellSouth Brief as App. A, Vol. 4, Tab 15.

[73] The record is also insufficient to judge the qualifications of the persons involved to design, conduct, and analyze the results from a test involving the end-to-end performance of

properly and determine what weight to give a third-party review, we need to have a clear and complete understanding of the scope of the work, including: how and by whom it was defined; the qualifications of the organization and of the individual persons who designed, conducted, and analyzed the tests; and the tests performed that form the basis for the conclusions reached, including the type, mix, and volume of test transactions submitted. To accept the results of an independent test without this information would simply surrender judgment to the tester without knowing the validity of the test.

Second, Ernst & Young simply attests to the accuracy of BellSouth's own statements regarding its OSS, which, even if true, are insufficient to demonstrate that BellSouth has efficient, effective, and adequate wholesale support processes. Taken as a whole, BellSouth's assertions, attached to the Putnam Aff. attestation, emphasize the *existence* of specific support processes and related OSS interface functions, rather than the *efficiency, effectiveness, and adequacy* of the existing support processes and functions. Moreover, the assertions regarding readiness seem to focus on OSS interface and system capacity, and not on end-to-end performance.[74] Thus, one can accept the assertions and yet not be convinced that the wholesale support processes have been shown to be adequate.[75]

BellSouth wholesale support processes.

[74] See generally Statement of BellSouth Operating Support Systems Performance and Operational Readiness, attached to Putnam Aff.

[75] The limitations of the Ernst and Young analysis are apparent when it is compared, for example, with the ongoing review of Bell Atlantic–New York's wholesale support processes, a review being conducted by KPMG Peat Marwick and Hewlett-Packard under the supervision of the New York Public Service Commission. KPMG, as the test designer and manager, reports to NYPSC staff and operates independently from Bell Atlantic. Using numerous persons with actual experience in telephone company operations, KPMG has conducted a ground-up review of the business processes and relationships involved to determine the scope of the review, and

C. Lack of Benchmarks or Other Guarantees of Future Performance

In addition to asking whether a market is currently open to competition, the Department considers whether a market is *irreversibly* open, based on an assurance that competitive conditions will remain in place after a section 271 application has been granted. This assurance requires an appropriate means of evaluating performance, involving (1) performance measures and reporting requirements so that wholesale performance can be measured; (2) performance standards, i.e., BOC commitments or obligations to meet specified levels of performance (preferably backed up by specific enforcement mechanisms such as liquidated damages clauses); and (3) performance benchmarks, i.e., an established track record of performance. Together, these factors will enable competitors and regulators to assess current performance and to address more effectively, through contractual, regulatory, or antitrust remedies, any post-entry "backsliding" from prior performance.

In the absence of important data concerning wholesale performance, discussed above, the Department cannot conclude that BellSouth's performance is currently adequate, nor can we conclude that BellSouth's performance will continue to be maintained after section 271 approval.

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thereafter, the tests that should be performed; it has consulted extensively with both Bell Atlantic and its competitors to ensure that the test will be complete. The recently published master test plan, which will guide the testing and evaluation that is to occur later this year, is quite detailed (roughly 500 pages in length), and is publicly available. This, combined with the documentation that will be produced and made available as the evaluation progresses, is expected to provide all interested persons an opportunity to evaluate the validity and results of the test.

In part because many details regarding the implementation of the test are still being determined, we presently are not in a position to judge the adequacy of the test that will be ultimately performed. From the information that is available, however, it appears that an independent process of this type, along with the corresponding reports and related documentation, is much more likely to develop and present evidence that will demonstrate the efficiency, effectiveness, and adequacy of the wholesale support processes under review.